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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/525,412	03/15/2000	Steve Sheppard	6019.3027	1259

26853 7590 07/18/2003

COVINGTON & BURLING  
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WASHINGTON, DC 20004-2401

EXAMINER

BELIVEAU, SCOTT E

ART UNIT	PAPER NUMBER
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2614

DATE MAILED: 07/18/2003

17

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/525,412

Applicant(s)

SHEPPARD ET AL.

Examiner

Scott Beliveau

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 03 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-58 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-53 and 55-57 is/are rejected.
- 7) ☒ Claim(s) 54 and 58 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 16.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Specification*

1. The amendment filed 3 June 2003 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: "Each of U.S. patent applications nos. 09/488,275, 09/026,036, and 60/038,276 is hereby incorporated by reference". See MPEP 201 re: Incorporation by Reference. Applicant is required to cancel the new matter in the reply to this Office Action as the incorporation by reference adds subject matter to the instant application that was not there when initially filed.

### *Priority*

2. The examiner acknowledges the applicant's claim for a chain of priority to US provisional application No. 60/038,276. As the instant application is a continuation-in-part of this application, the examiner's position is that the applicant is only entitled to priority for subject matter derived from Figures 1-4 of the Eames et al. (US Pat No. 6,317,884) reference as this material is common to both applications. The embodiment of Figure 6 is different from that presented in the instant application, however, the claims as currently presented are broad enough to be read on either the embodiment of Figure 6 or the embodiment of Figure 4. The Eames et al. reference, however, makes no explicit reference or suggestion pertaining to a "media interface device" as recited in the instant application. Accordingly, it is the

examiner's opinion that claims 1-4, 18-21, 35, 39, 40-41, and 44 shall receive the benefit of the filing date of the Provisional application, namely 19 February 1997.

***Information Disclosure Statement***

3. The information disclosure statement (IDS) submitted on 3 June 2003 was filed after the mailing date of the first Office Action on 31 January 2003. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner. It is noted, however, that most of references cited in the IDS were previously cited in the IDS submitted on 14 May 2001, Paper No. 2.

***Inventorship***

4. In view of the papers filed 3 June 2003, it has been found that this nonprovisional application, as filed, through error and without deceptive intent, improperly set forth the inventorship, and accordingly, this application has been corrected in compliance with 37 CFR 1.48(a). The inventorship of this application has been changed by the addition of Charles Eldering and Thomas Eames.

The application will be forwarded to the Office of Initial Patent Examination (OIPE) for issuance of a corrected filing receipt, and correction of the file jacket and PTO PALM data to reflect the inventorship as corrected.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent

Art Unit: 2614

any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

***Request for Information***

6. In conjunction with the submitted IDS an international search report was provided for a commonly assigned international application (WO 01/659933) that claims priority to the instant application. This document claims similar material to the instant application, but is associated with a different inventive entity. Both the instant application and the publication include Bill Weeks and Steve Sheppard. However, the instant application further includes Charles Eldering and Thomas Eames as additional inventors, while the publication further includes James Swisher and A. J. McInnis. Accordingly, the applicant is asked to provide comments on the information of record pertaining to the inventorship of the Sheppard et al. (WO 01/69933) so as to clarify the inventorship of the instant application.
7. With respect to the claim for priority, the examiner requests that a marked-up copy of the instant application be provided illustrating the subject matter added because of intervening Swisher et al. reference. It is the examiner's opinion that the priority derived from the Eames et al. reference includes subject matter pertaining to the configuration of the residential gateway (Figures 1-4), but does provide priority as to the interconnection/installation of the gateway illustrated in Figures 3-5 of the Swisher et al reference.

***Response to Arguments***

8. The OFFICIAL NOTICE presented in the previous Office Action stating that it is notoriously well known in the art to utilize “433 Mhz” in conjunction with the distribution of “UHF signals” was not traversed and is accordingly taken as an admission of the fact noted.
9. The OFFICIAL NOTICE presented in the previous Office Action stating that it is notoriously well known in the art to extract channel select commands as a “1 kHz signal” was not traversed and is accordingly taken as an admission of the fact noted.
10. Claims 1, 18, 20, 35, and 45 were provisionally nonstatutory double patenting rejected in the previous Office Action. No remarks were provided pertaining to the provisional rejection.
11. Applicant’s arguments with respect to the rejection(s) of claim(s) 1-53, and 55-57 have been fully considered and are persuasive in light of the newly claimed application priority. However, upon further consideration, a new ground(s) of rejection is made as follows.

***Double Patenting***

12. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438,

Art Unit: 2614

164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

13. Claims 1, 20, and 45 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1, 9, and 30 of co-pending Application No. 09/526,100. Although the conflicting claims are not identical, they are not patentably distinct from each other because the differences between the two are either encompassed within the claim of the instant application or are comprise a minor rewording of limitations. For example, claim 45 of the instant application recites the limitation of “wireless remote control devices” wherein the co-pending application references “optical remote control devices”. In the context of the instant application, “wireless remote control devices” may comprise either UHF or IR (optical) based “remote devices.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

14. Claims 18 and 35 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 16 and 31 of co-pending

Application No. 09/488,275. Although the conflicting claims are not identical, they are not patentably distinct from each other because the differences between the two are encompassed within the scope of the claims of the instant application. In particular, the claim 18 of the instant application recites a “video processor for processing video signals” wherein the co-pending application recites that the “video processors” decode or “construct at least one series of video packets” to form “at least one television signal”. The instant application defines steps for the “processing video signals” to comprise the “constructing” limitation cited in the co-pending application (IA: Page 16, Lines 8-11).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

***Claim Rejections - 35 USC § 102***

15. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

16. Claims 1, 3-7, 13-14, 18, 20-24, 31, 35, 37-43, and 45-47 are rejected under 35

U.S.C. 102(e) as being anticipated by Ehreth (US Pat No. 6,286,142).

In consideration of claim 1, the Ehreth reference discloses a method of “receiving, decoding, and distributing video from a telecommunications network” [40] (Col 1, Lines 44-50) to a “plurality of televisions in at least two separate locations” [100] (Figure 1) via a



“residential gateway” [30] (Col 2, Line 59 – Col 3, Line 10). The reference teaches that the “residential gateway” [30] is operable to “receive the video signal from the telecommunications network” (Col 3, Lines 11-34) and to “receive at least one channel select command” [80] from a “remote control device” [70]. Subsequent to the “select command” the “residential gateway” [30] is operable to “transport the video signal over a video bus” wherein it is “processed” [34] (Col 3, Lines 34-50) and “transmitted” to the aforementioned “plurality of televisions” [100] (Col 4, Lines 44-62).

Claim 3 is rejected wherein the device is further operable to receive “channel select commands” from IR “wireless remote control devices” [70] located “remotely from the residential gateway” as illustrated in Figure 1 (Col 3, Line 65 – Col 4, Line 12).

Claim 4 is rejected wherein the disclosure teaches that the “wireless remote control devices” [70] may further transmit “channel select commands” to “remote antennae packages” [50]. The aforementioned “remote antennae packages” [50] subsequently “transmit the wireless signals from the remote antennae packages to the residential gateway to the residential gateway over media” (Col 3, Lines 2-5; Col 4, Lines 13-43).

Claim 5 is rejected wherein the “residential gateway” [30] further serves as a “media interface device” in so far as it serves as the “interface” for the distribution of signals between the in-home wiring [90] and the telecommunications network [40]. The claim is not necessarily limiting with respect to the “residential gateway” not being further interpreted as a “media interface device”. Accordingly, the “media interface” is operable to “receive” and “extract” the “channel select commands” and subsequently “transmit” the aforementioned commands to “a remote control processor” [80] (Col 4, Lines 44-62).

Art Unit: 2614

Claim 6 is rejected wherein the “media is coaxial cable” and the aforementioned “media interface device” is subsequently a “coaxial interface device” (Col 3, Lines 51-54).

Claim 7 is rejected wherein the “media interface device” [30] may further comprise a “remote antenna module” [80].

Claim 13 is rejected wherein as aforementioned “at least one television signal” [40] is “transmitted” to and “processed” by a “media interface device” [30] for “at least one television” [100].

Claim 14 is rejected wherein the embodiment further comprises a “splitting” the aforementioned “at least one television signal” so as to “transmit” the television signal to “separate locations” based on the requested program (Col 5, Lines 15-29).

Claim 18 is rejected wherein as aforementioned in the rejection of claim 1, the Ehreth reference discloses a “residential gateway” [30] that is operable to distribute video signals to “plurality of televisions in at least two separate locations” [100] (Figure 1) (Col 2, Line 59 – Col 3, Line 10). As illustrated in Figure 1, the “residential gateway” comprises a “receiver” [80], a “network interface module” [32], a “video processor” [32] and a “video bus” that connects the various components within the “residential gateway” [30].

Claim 20 is rejected wherein the “residential gateway” [30] further comprises a “remote control module” [80] (Col 4, Line 44 – Col 5, Line 14).

Claim 21 is rejected wherein Figure 1 illustrates “remote antennae packages” [50] in close proximity to and coupled to television which “receives wireless signals” from the “wireless remote control devices” [70] and subsequently inherently “modulates the wireless

signal” for transmission over “media” [90] to the “residential gateway” [30] (Col 4, Lines 24-43).

Claim 22 is rejected wherein the “residential gateway” [30] comprises a “media interface device” [80] that couples the external telecommunication network [40] to the “remote control antennae packages” [50] via the internal “media” [90]. As aforementioned, the “media interface device” [80] “receives” and “extracts” the “channel select commands” (Col 4, Lines 44-62).

Claim 23 is rejected wherein the “media is coaxial cable” and the aforementioned “media interface device” is subsequently a “coaxial interface device” (Col 3, Lines 51-54).

Claim 24 is rejected wherein the “media interface device” [80] may further comprise a “remote antenna module” that is operable to “extract channel select commands”.

Claim 31 is rejected wherein the aforementioned “media interface device” [80] is “directly connected” to or embedded within the “residential gateway” [30] (Col 4, Lines 48-51).

Claim 35 is rejected wherein the Ehreth reference illustrates a “method of receiving and decoding signals” from a “telecommunications network” [40] and transmitting the signals from the “residential gateway” [30] to a “plurality of devices” [100]. As illustrated, the “residential gateway” [30] serves to connect each of the plurality of devices and the telecommunications network”. The “residential gateway” [30] is operable to “receive” [32] a video signal from the telecommunications network [40] and “channel select commands” from a “remote control device” [70] such that the “processing” [80] these commands results

in the “transmission” of the video signal to the “television [100] (Col 1, Line 44 – Col 2, Line 5).

Claim 37 is rejected wherein the aforementioned “residential gateway” [30] as illustrated includes connecting televisions [100] remotely located from the “residential gateway [30] via “remote antennae packages” [50]. The “residential gateway” [200] further comprises a “media interface device” [80] connected to the “residential gateway” which interfaces with “media” [90] to retrieve signals from the “remote antennae packages” [50].

Claim 38 is rejected wherein the aforementioned “media interface device” [80] is “directly connected” to or embedded within the “residential gateway” [30] (Col 4, Lines 48-51).

Claim 39 is rejected wherein the “residential gateway” [30] is further operable to receive [80] “channel select commands” from an IR or “optical remote control devices” [70] located “remotely from the residential gateway” as illustrated in Figure 1 (Col 3, Line 65 – Col 4, Line 12; Col 5, Lines 15-29). The claim does not specify that the “receiver” [80] necessarily receives the signal as an optical signal.

Claim 40 is rejected as aforementioned with respect to claim 39 wherein an IR remote is a “wireless remote control device” [70].

Claim 41 is rejected wherein the disclosure teaches that the “wireless remote control devices” [70] may further transmit “channel select commands” to “remote antennae packages” [50]. The aforementioned “remote antennae packages” [50] subsequently “transmit the wireless signals from the remote antennae packages to the residential gateway over media” (Col 4, Lines 13-23).

Claims 42-43 are rejected wherein as aforementioned the “wireless signals” from the “remote antenna packages” [50] are transmitted over the “media” [90] to the “media interface device” [80]. The “channel select commands” are subsequently “extracted” by a “remote antennae module” [80] and “transmitted” to the “remote control processor” [34] which modulates the signals for distribution (Col 3, Lines 40-46).

Claim 45 is rejected wherein Figure 1 of the Ehreth reference illustrates a “method of receiving and decoding signals” from a “telecommunications network” [40] using a “residential gateway” [30]. The “residential gateway” [30] is “connected to the telecommunications network” [40] and to a “plurality of devices” [100]. The “residential gateway” [30] is operable to “receive” and “process” [80] “channel select commands” from “wireless remote control device” [70] which “transmit channel select commands as wireless signals” to “remote antennae packages” [50] (Col 1, Line 44 – Col 2, Line 5).

Claim 46 is wherein the “residential gateway” [200] of the Ehreth reference comprises a “network interface module” [32], a “video processor” [30], and a “remote control module” [80]. The reference teaches that the “remote control module” [80] receives “channel select commands” which are “extracted” from the “media” [90]. These commands are modulated onto the media via “remote antenna packages” [50].

Claim 47 is rejected as aforementioned in the rejection of claim 46 wherein the “residential gateway” [30] of the Ehreth reference comprises a “network interface module” [32], a “video processor” [30], a “remote antennae packages” [50], and a “media interface device” [80] for inherently “demodulating” and “extracting” the “channel select command” and “transmitting” it to the “remote control module” [34] of the “residential gateway” [30].

Art Unit: 2614

17. Claims 5, 7, 11-17, 22, 29-30, 32-34, 47-49, 50-53, and 55-57 are rejected under 35 U.S.C. 102(e) as being anticipated by Swisher et al. (US Pat No. 6,418,149).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

Figure 3 of the Swisher et al. reference illustrates a method of “receiving, decoding, and distributing video from a telecommunications network” [180] to a “plurality of televisions in at least two separate locations” [197/198/199] via a “residential gateway” [200]. The reference teaches that it is operable to “receive at least one channel select command” from a “remote control device” [500/700] (Col 5, Lines 51-67 – Col 6, Lines 1-3) and to subsequently “transmit” the video signal (Col 2, Lines 48-55). These “wireless remote control devices” [500/700] (both IR and UHF are wireless based) are located “remotely from the residential gateway, as illustrated in Figures 2B and 2C. Furthermore, they are operable to transmit “channel select commands” to “remote antennae packages” [710], which subsequently “transmit the wireless signals from the remote antennae packages to the residential gateway to the residential gateway over media” (Col 5, Lines 56-67 – Col 6, Lines 1-3).

As to the recited limitation wherein signal is “transported” over a video bus for “processing”, the Swisher et al. reference expressly incorporates the Eames et al. (US Pat No.

6,317,884) teachings pertaining to the “residential gateway” [200] (Col 5, Lines 26-33). As illustrated in Figure 6 of the Eames et al. reference, the “residential gateway” [200] comprises a “video bus” [429] and a “processor” [430] (Col 7, Lines 3-12).

In consideration of claims 5 and 7, the Swisher et al. reference teaches that the aforementioned “residential gateway” [200] may require additional components to utilize the in-house wiring illustrated in Figures 2C. The “residential gateway” embodiment of Figure 6 corresponds to this wiring arrangement (Eames et al.: Col 7, Lines 26-35). The claim language may be broadly interpreted such that the “media interface device” is the collection of components that are necessary to facilitate the point-to-point in-home coaxial wiring installation outlined in Swisher et al. Subsequently, the “media interface device” comprises a “remote antenna device” [620] that is operable to “receive” and “extract” the “channel select commands” (Swisher et al.: Col 6, Line 49 – Col 7, Line 20) wherein the aforementioned commands are subsequently “transmitted” to “a remote control processor” [472] (Eames et al.: Col 7, Lines 16-25).

Claim 11 is rejected wherein the method further comprises the use of a “diplexer” [620] to further extract “other signals” (Col 6, Lines 37-55).

Claim 12 is rejected wherein the method further comprises the use of a “balun” [622] for “adjusting the impedance” (Col 8, Lines 23-32).

Claim 13 is rejected wherein as illustrated in Figure 3 “at least one television signal” is “transmitted” and “processed” to “at least one television” [197/198/199].

Claim 14 is rejected wherein the embodiment further comprises a “splitter” [662] so as to “transmit” the television signal to “separate locations” (Col 7, Lines 41-49)

Claim 15 is rejected wherein the embodiment further comprises a “diplexer” [620] that is operable to “diplex other signals onto the media with the at least on television signal” (Col 7, Lines 61-64).

Claim 16 is rejected wherein the “processing” includes changing the “impedance of a subset of the other signals” through the use of a balun [622].

Claim 17 is rejected wherein the “television signals” are “combined” [650] prior to being “split” [652] for reception by the televisions [197/198] as illustrated in Figure 3.

Claim 22 is rejected wherein Figure 2C of the Swisher et al. reference illustrates “remote antennae packages” [710] in close proximity to and coupled to television which “receives wireless signals” from the “wireless remote control devices” [700] and subsequently inherently “modulate the wireless signal” for transmission over “media” [171] to the “residential gateway” [200] (Col 5, Lines 63-67 – Col 6, Lines 1-3). As aforementioned, the claim language may be broadly interpreted such that the “media interface device” is the collection of components that are necessary to facilitate the point-to-point in-home coaxial wiring outlined in Swisher et al. Subsequently, the “media interface device” comprises a “remote antenna device” [620] that is operable to “receive” and “extract” the “channel select commands” in conjunction with other RF signals (Swisher et al.: Col 6, Line 49 – Col 7, Line 20).

Claim 29 is rejected wherein the method further comprises the use of a “diplexer” [620] to further extract “other signals” (Col 6, Lines 37-55)

Claim 30 is rejected wherein the method further comprises the use of a “balun” [622] for “adjusting the impedance” (Col 8, Lines 23-32).



Claims 32-34 are rejected wherein the “residential gateway” [200] utilized by Swisher et al. is illustrated in Eames et al. The “residential gateway” [200] illustrated in Figure 6 is operable to distribute video signals to “plurality of televisions in at least two separate locations” [199] (Figure 5). As illustrated in Figure 6, the “residential gateway” comprises a “receiver” [470/472], a “network interface module” [410], a “video processor” [430] and a “video bus” [429]. The aforementioned embodiment comprises an “optical receiver” [472] (Eames et al.: Figure 6) and the “media interface device” includes a “splitter” [652] and a “combiner” [650].

Claim 47 wherein the “residential gateway” [200] of the Eames et al. reference illustrated in Figures 6 and 7 comprises a “network interface module” [410], a “video processor” [430], a “remote antennae package” [710], and a “media interface device” [620] for extracting the “channel select command” and “transmitting” it to the “remote control module” [422] of the “residential gateway” [200].

Claim 48 is rejected wherein the “media interface device” further comprises a “remote antennae module” [620], a “splitter” [652], a “balun” [622], and a “diplexer” [620].

Claim 49 is rejected wherein the “media interface device” further comprises a “combiner” [650] (Col7, Lines 28-36), and a “splitter” [652] (Col 7, Lines 41-49)

In consideration of claims 50 and 56, the system comprising the “residential gateway” [200] and associated components illustrated in Figure 3 are interpreted as comprising a “media interface device” as it is operable to support the “directional direction of signals to multiple devices over a media”. The limitations of the claim are met as follows:

- a “first connector” [652] for receiving a “TV signal” in the direction of heading away from the “residential gateway” [200];
- a “second connector” [622] for receiving an upstream network signal away from the “residential gateway” [200] and transmitting a “downstream network signal” towards the “residential gateway” [200];
- a “third connector” [610] for transmitting the “TV signal” and the “upstream network signal” away from the “residential gateway” [200] and receiving the “downstream network signal” and “wireless signal” in the direction of the “residential gateway”;
- a “diplexer” [620] for extracting the “network signal from the media” in the direction towards the “residential gateway” [620];
- a “remote antenna module” or “fourth connector” [620] for receiving the “wireless signal”, extracting the “channel select command”, and transmitting it towards the “residential gateway” [200].

Claim 51 is rejected wherein the “media interface device” comprises a “balun” [622].

Claim 52 is rejected wherein the embodiment includes a “splitter” [652] wherein the “splitter” comprises a “fifth connector” for “transmitting one of the two identical “first signals” in the “first direction” or towards TV3 [198] via the media [646].

Claim 53 is rejected wherein the aforementioned further comprises a “combiner” [650].

Claim 55 is rejected as aforementioned wherein the aforementioned “media interface device” is “directly connected” to or embedded within the “residential gateway” [200] and is

further operable to distributes signals between the multiple devices and the telecommunications network as illustrated in Figures 1 and 2.

Claim 57 is rejected in view of Figure 3 of the aforementioned Swisher et al. reference. The claimed “media interface” is met wherein the Figure comprises “a first connector” [610], a “second connector” [474] (Eames et al: Figure 6), a “third connector” [650], a “diplexer” [620], a “balun” [622], and a “remote antennae module” [640] that is connected to the “diplexer” [620] (Eames et al.: Figure 6).

***Claim Rejections - 35 USC § 103***

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

19. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

20. Claims 2, 19, and 32-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ehreth (US Pat No. 6,286,142), in view of Hamlin (US Pat No. 5,574,964).

In consideration of claims 2 and 19, the Ehreth reference does not explicitly disclose nor preclude that the “receiving at least one channel select command” may not be further conducted via an “optical receiver within the residential gateway”. The use of “optical receivers” is notoriously well known in the art. Accordingly, it would have been obvious to one of ordinary skill in the art to modify “residential gateway” [30] to further include an IR or “optical receiver” for the purpose of advantageously facilitating the operation of a “television located in close proximity to the residential gateway” [100] that does not accept IR commands.

Alternatively, the Hamlin reference discloses a system including a “gateway” that includes an “optical receiver within the residential gateway” [40] (Col 6, Lines 8-13). Accordingly, it would have been obvious to one of ordinary skill in the art to modify the Ehreth “gateway” [30] to further include an “optical receiver within the residential gateway” for the purpose of providing a means by which anyone within operational radius may control or program the signal distribution system (Col 5, Lines 31-45) and to further provide versatility, and mobility while communicating with the gateway.

Claim 32 is rejected wherein the embodiment further comprises a “media interface device” [32/34] for “processing the at least one television signal” and “transmitting the processed television signal to the at least one television”. Both the “network interface” [32] and the “modulating unit” [34] interface with the distribution media [20/90].

Claim 33 is rejected wherein the embodiment further comprises a “splitting” the aforementioned “at least one television signal” so as to “transmit” the television signal to “separate locations” based on the requested program (Col 5, Lines 15-29).

Art Unit: 2614

Claim 34 is rejected wherein the aforementioned device comprises a “combiner” [34] that is operable to modulate onto any one of a plurality of downstream RF channels for appropriate distribution over a common medium [90] (Col 3, Lines 40-46).

21. Claims 8-12, 25-30, 36 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ehreth (US Pat No. 6,286,142).

In consideration of claims 8 and 25, the Ehreth et al. reference discloses that the “wireless remote control devices” may utilize IR signaling or other suitable signal transmission media for entering user input information. The reference subsequently discloses the claimed invention except for the “wireless remote control devices” utilizing UHF as opposed to IR. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to utilize UHF signals since the examiner takes OFFICIAL NOTICE of the equivalence of “UHF” and IR for their use in the remote controller art and the selection of any of these known equivalents to remotely control or signal a television would be within the level of ordinary skill in the art.

In consideration of claims 9 and 26, the Ehreth et al. reference does not explicitly disclose the frequency utilized in conjunction with upstream signaling. It is notoriously well known in the art to utilize “433 Mhz” in conjunction with the distribution of “UHF signals”. Accordingly, it would have been obvious to one of ordinary skill in the art to “transmit” the UHF signals at “433 MHz” for the purposes of using a standard transmission frequency that is commonly utilized in the transmission of signals from “wireless remote controls”.

In consideration of claim 10, the Ehreth et al. reference does not explicitly specify the “frequency” wherein channel commands are extracted [80]. It is notoriously well known in

the art to extract channel select commands as a “1 kHz signal”. Accordingly, it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the “remote antennae module” [80], if necessary, to extract the channel select command as a “1 KHz signal” for the purpose of utilizing a simple signaling protocol between the “remote antenna package” [50] and the residential gateway [30].

In consideration of claims 11 and 29, the reference discloses that the embodiment is operable to facilitate bi-directional communications with the “telecommunication network” [40] (Col 3, Lines 11-18) and that the network may transmit both data and video signals (Col 3, Lines 46-60). The reference, however, does not explicitly disclose that the “media interface device” [30] does not further comprise a “diplexer”. The examiner takes OFFICIAL NOTICE that the use of duplex filters is notoriously well known in the art. Accordingly, it would have been obvious to one of ordinary skill in the art to modify the “media interface device” [30] to further comprise provide a “diplexer” for the purpose of ensuring frequency separation between upstream and downstream communications in a manner that further reduces the ingress/egress noise within the system.

In consideration of claims 12 and 30, the reference discloses that the “media interface device” [30] is operable to interface with external transmission media [20] as well as the internal distribution network [90] (Col 3, Lines 18-23). The reference, however, does not explicitly disclose the use of a “balun”. The examiner takes OFFICIAL NOTICE that the use of “baluns” is notoriously well known in the art. Accordingly, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the “media interface device” [30], if necessary, to utilize a “balun” for the purpose of ensuring that the impedance

of the external network matches that of the internal network as to reduce noise (reflections) introduced into the system due to mismatched media impedances.

Claim 27 is rejected wherein the “remote antennae packages” [50] “modulates the wireless signal” for transmission over “media” [90] to the “residential gateway” [30] based on the user selectable frequency (Col 4, Lines 24-43).

In consideration of claim 28, the Ehreth et al. reference does not explicitly specify the “frequency” wherein channel commands are extracted [80]. It is notoriously well known in the art to extract channel select commands as a “1 kHz signal”. Accordingly, it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the “remote antennae module” [80], if necessary, to extract the channel select command as a “1 KHz signal” for the purpose of utilizing a simple signaling protocol between the “remote antenna package” [50] and the residential gateway [30].

In consideration of claims 36 and 44, the Ehreth et al. reference suggests that the distribution network [90] may utilize other transmission media and does not explicitly preclude that the distribution network [90] may not utilize “S-video cables” as are known in the art. Accordingly, it would have been obvious to one of ordinary skill in the art to utilize other media to connect a “television located in close proximity” [100] to the “residential gateway” [30] for the purpose of improving video quality by distributing each of the color components separately.

*Allowable Subject Matter*

22. Claims 54 and 58 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The applicant has provided evidence in this file showing that the invention was owned by, or subject to an obligation of assignment to, the same entity as the Swisher et al. (US Pat No. 6,418,149) patent at the time this invention was made. Accordingly, the Swisher et al. reference is disqualified as prior art through 35 U.S.C. 102(e), (f) or (g) in any rejection under 35 U.S.C. 103(a) in this application. The applied art does not qualify as prior art under another subsection of 35 U.S.C. 102 and accordingly is disqualified as prior art under 35 U.S.C. 103(a) and as such cannot be modified so as to incorporate an "X by Y splitter with additional connectors" as is known in the art.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure as follows. Applicant is reminded that in amending in response to a rejection of claims, the patentable novelty must be clearly shown in view of the state of the art disclosed by the references cited and the objections made.

- The Schaffner et al. (US Pat No. 6,04,908) reference discloses a system for combining and distributing television signals of diverse modulation formats.
- The Paul (US Pat No. 6,536,042) reference discloses a signal distribution system for distributing and interconnecting cable television , satellite, telephone data, and infra-red control signals among a plurality of outlets at a site.



Art Unit: 2614

- The Naboulsi et al. (US Pat no. 5,805,591) reference discloses a subscriber network interface for connecting a subscriber premise location to a broadband communication network transporting multiple two-way communication signals.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Beliveau whose telephone number is 703-305-4907.

The examiner can normally be reached on Monday-Friday from 8:00 a.m. - 5:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on 703-305-4795. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-0377.

SEB  
July 14, 2003

  
JOHN MILLER  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600